





# Nd Doped | Fibers

# For fiber laser between 890 - 1060 nm

iXblue Photonics Neodymium Aluminosilicate double clad fibers have been developed to maximize fiber efficiency through a precisely controlled host composition. Compared to a standard Neodymium fiber, the 1.06-micron emission is reduced through careful fiber design optimization.

Our double clad fibers are routinely tested to various parameters such as photodarkening and environmental behavior.

#### **Key Features**

- Host composition optimized for high energy efficiency and low clustering
- · Low splicing losses
- High NA, High performance low-index cladding
- · Low background losses
- Low macrobending losses at operating wavelength

### **Applications**

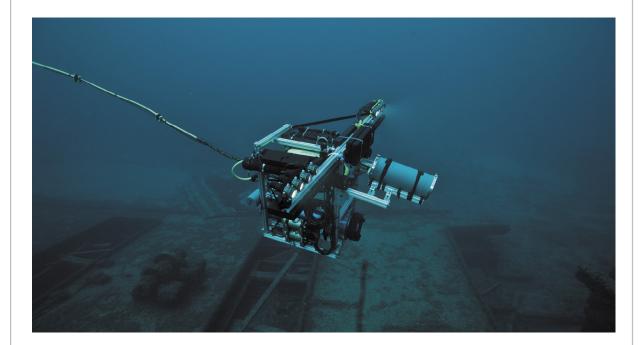
• 0.9 to 1.064 µm fiber lasers

#### **Related Products**

- · Matching passive fiber
- · Associated fiber bragg mirror









# **Main Specifications**

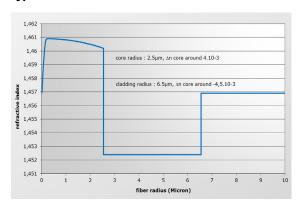
Product Name	Core diameter (µm)	Core NA	Clad absorption @ 800 nm (dB/m)	Cladding diameter (µm)	Coating diameter (µm)	Multimode clad shape
IXF-2CF-ND-O-5-125-D	4 +/- 0.5	0.14	> 0.15	125 +/- 3	245+/-15	Octagonal
Polarization Maintaining Fibers:						
IXF-2CF-ND-PM-5-80-W*	5 +/- 0.5	0.16	> 0.35	80 +/- 3	170 +/- 15	Panda
IXF-2CF-ND-PM-20-80-V2	20 +/- 2	0.065	2.3	80 +/- 3	170 +/- 10	Panda

<sup>\*</sup> Associated passive fibers, as well as a fiber combiners adapted to this fiber

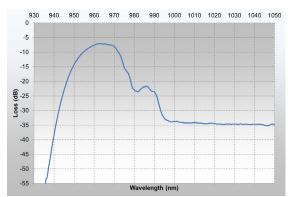
#### **Common specifications**

- · MM background (dB/km): < 50
- · Cladding NA: ≥ 0.46
- · Core-clad offsset (µm): < 1.0
- · Proof test level (kpsi): 100
- · LP01 cutoff wavelength (µm): 1
- · Operating wavelength (nm): 900 950

#### **Typical Refractive Index Profile**



# LP01 cutoff



# **Matching Fiber Combiner**

Product Name	Number of MM port	Pump signal transmission (%)	Signal transmission (%)	PER (dB)	Maximum pump signal power (W)
IXS-COMB-PM-2+1-1-4-80-P*	2	75	93	19	15
IXS-COMB-PM-2-1-1-20-80-P*	2	75	>95	TBC	20

<sup>\*</sup> Panda PM design

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